REMARKS

Claims 14, 15, 24, and 25 are pending in the present application and stand allowable or allowed. Of these claims, claims 14, 24 and 25 have been amended. Claims 1-13 and 16-23 have been cancelled.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is entitled "**VERSION WITH MARKINGS TO SHOW CHANGES MADE**".

Applicants respectfully request reconsideration and allowance of the above-identified application in view of the following remarks.

Oath/Declaration:

In regard to this requirement, a new oath and declaration is enclosed.

Drawings:

In regard to this objection, the relevant claims have been cancelled. However, it is important to note that FIG. 3 shows an embodiment of a multiple energy storage cell pack. As shown in FIG. 3, a "5X8 40 CELL ULTRACAP ARRAY."

Specification:

In regard to the objections to the specification, the title and the specification have been amended accordingly.

Claim Objections:

In regard to these objections, claims 6 and 20 have been cancelled, making this objection moot.

35 U.S.C. 112, second paragraph:

In regard to this rejection, the relevant claims have been cancelled, making this objection moot.

35 U.S.C. 102(a):

In regard to this rejection, the relevant claims have been cancelled, making this objection moot.

35 U.S.C. 103(a):

In regard to this rejection, the relevant claims have been cancelled, making this objection moot.

Allowable Subject Matter:

In regard to the allowable subject matter, claims 14, 24, and 25 have been amended to correct the spelling of "threshhold" to "threshold" and remove the "adapted to" language in the claims.

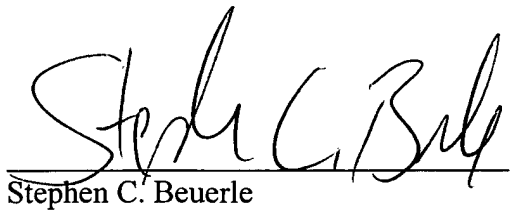
CONCLUSION

On the basis of the above, allowance of the application is believed to be warranted and such action is respectfully requested. If the Examiner has any questions or comments regarding this amendment, a telephone call to the undersigned at the number listed below is respectfully urged.

Respectfully submitted,

PROCOPIO, CORY, HARGREAVES
& SAVITCH, LLP

Dated: May 28, 2003

By: 
Stephen C. Beuerle
Reg. No. 38,380

Procopio, Cory, Hargreaves & Savitch LLP
530 B Street, Suite 2100
San Diego, California 92101-4469
(619) 238-1900

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please amend the specification as follows:

Please replace the title with --VOLTAGE THRESHOLD DEVICE AND ENERGY STORAGE CELL FAILURE DETECTION SYSTEM FOR POWER SUPPLY--.

Please replace paragraph 11 with the following:

A further aspect of the invention involves a failure detection system for an energy storage cell of a multiple energy storage cell pack. The system includes an electrical circuit connected to the energy storage cell, and adapted to indicate a cell active condition when a cell voltage Vcell is above a [threshhold]threshold active voltage Vactive, and to indicate a cell inactive condition when the cell voltage Vcell drops below the [threshhold]threshold active voltage Vactive.

Please replace paragraph 12 with the following:

An additional aspect of the invention involves a failure detection system for an energy storage cell of a multiple energy storage cell pack. The system includes an electrical circuit connected to the energy storage cell. The electrical circuit includes means for indicating a cell active condition when a cell voltage Vcell is above a [threshhold]threshold active voltage Vactive, and means for indicating a cell inactive condition when the cell voltage Vcell drops below the [threshhold]threshold active voltage Vactive.

Please replace paragraph 13 with the following:

A further aspect of the invention involves an active voltage limiting and failure detection system for an energy storage cell of a multiple energy storage cell pack. The system includes a first electrical circuit and a second electrical circuit connected to the energy storage cell. The first electrical circuit is powered by the energy storage cell and is adapted to draw a significant amount of power from the energy storage cell when a cell voltage Vcell reaches a maximum voltage Vmax to reduce the cell voltage Vcell, to stop drawing the significant amount of power to reduce the cell voltage Vcell when the cell voltage Vcell reaches a minimum voltage Vmin, and to draw no power when the cell voltage Vcell reaches a shutdown voltage Vshutdown. The second electrical circuit is adapted to indicate a cell active condition when the cell voltage Vcell is above a [threshhold]threshold active voltage Vactive, and to indicate a cell inactive condition when the cell voltage Vcell drops below the [threshhold]threshold active voltage Vactive.

Please replace paragraph 14 with the following:

A yet further aspect of the invention involves an active voltage limiting and failure detection system for an energy storage cell of a multiple energy storage cell pack. The system includes a first electrical circuit and a second electrical circuit connected to the energy storage cell. The first electrical circuit is powered by the energy storage cell and includes means for drawing a significant amount of power from the energy storage cell when a cell voltage Vcell reaches a maximum voltage Vmax to reduce the cell voltage Vcell, means for stopping the drawing of the significant amount of power to reduce the cell voltage Vcell when the cell voltage Vcell reaches a minimum voltage Vmin, and means for drawing no power when the cell voltage Vcell reaches a shutdown voltage Vshutdown. The second electrical circuit includes means for indicating a cell active condition when the cell voltage Vcell is above a [threshhold]threshold active voltage Vactive, and means for indicating a cell inactive condition when the cell voltage Vcell drops below the [threshhold]threshold active voltage Vactive.

Please replace paragraph 30 with the following:

The voltage threshold device 90 (e.g., zener diode) sets a minimum [threshhold]threshold active voltage Vactive for the cell voltage Vcell to overcome before the second LED 81 can be "fired". For a Vcell value below the minimum [threshhold]threshold active voltage Vactive, the LED 81 will not "fire", the corresponding LED 95 in the display array 97 will not light and the cell 15 is defined to be in a "failed" or inactive condition.

Please replace paragraph 32 with the following:

If the cell 15 is "good" or active, an output enable signal turns on the LED driver 110 and the LED 95 is illuminated. The voltage of the cell 15 turns on the output line 92 in response to an interrogation, which may be run continuously. If the cell 15 has failed, the output line 92 will not go high and cause the LED 95 to light, thus, a dark LED 95 indicates the failed cell 15. The voltage threshold device 90 in series with the output line 92 can be chosen to set the [threshhold]threshold active voltage Vactive of the cell 15.

Please replace paragraph 37 abstract with the following:

An active voltage limiting and failure detection system for an energy storage cell of a multiple energy storage cell pack includes a first electrical circuit and a second electrical circuit connected to the energy storage cell. The first electrical circuit is powered by the energy storage cell and includes means for drawing a significant amount of power from the energy storage cell when a cell voltage Vcell reaches a maximum voltage Vmax to reduce the cell voltage Vcell, means for stopping the drawing of the significant amount of power to reduce the cell voltage Vcell when the cell voltage Vcell reaches a minimum voltage Vmin, and means for drawing no power when the cell voltage Vcell reaches a shutdown voltage Vshutdown. The second electrical circuit includes means for indicating a cell active condition when the cell voltage Vcell is above a [threshhold]threshold active voltage Vactive, and means for indicating a cell inactive condition when the cell voltage Vcell drops below the [threshhold]threshold active voltage Vactive.

IN THE CLAIMS:

Please amend the claims as follows:

14. (Amended) A failure detection system for an energy storage cell of a multiple energy storage cell pack, the energy storage cell having a cell voltage Vcell, the system comprising: an electrical circuit connected to the energy storage cell, and indicating a cell active condition when a cell voltage Vcell is above a threshold active voltage Vactive, and indicating a cell inactive condition when the cell voltage Vcell drops below the threshold active voltage Vactive[The system of claim 12, wherein the circuit includes] and the circuit including a voltage threshold device to set the [threshhold]threshold active voltage Vactive.

24. (Amended) An active voltage limiting and failure detection system for an energy storage cell of a multiple energy storage cell pack, the energy storage cell having a cell voltage Vcell, the system comprising: a first electrical circuit connected to and powered by the energy storage cell, the first electrical circuit [adapted to draw]drawing a significant amount of power from the energy storage cell when a cell voltage Vcell reaches a maximum voltage Vmax to reduce the cell voltage Vcell, to stop drawing the significant amount of power to reduce the cell voltage Vcell when the cell voltage Vcell reaches a minimum voltage Vmin, and to draw no power when the cell voltage Vcell reaches a shutdown voltage Vshutdown; and a second electrical circuit connected to the energy storage cell and [adapted to indicate]indicating a cell active condition when the cell voltage Vcell is above a [threshhold]threshold active voltage Vactive, and to indicate a cell inactive condition when the cell voltage Vcell drops below the [threshhold]threshold active voltage Vactive.

25. (Amended) An active voltage limiting and failure detection system for an energy storage cell of a multiple energy storage cell pack, the energy storage cell having a cell voltage Vcell, the system comprising: a first electrical circuit connected to and powered by the energy storage cell, the first electrical circuit includes means for drawing a significant amount of power from the energy storage cell when a cell voltage Vcell reaches a maximum voltage Vmax to reduce the cell voltage Vcell, means for stopping the drawing of the significant amount of power to reduce the cell voltage Vcell when the cell voltage Vcell reaches a minimum voltage Vmin, and means for drawing no power when the cell voltage Vcell reaches a shutdown voltage Vshutdown; and a second electrical circuit connected to the energy storage cell and including means for indicating a cell active condition when the cell voltage Vcell is above a [threshhold]threshold active voltage Vactive, and means for indicating a cell inactive condition when the cell voltage Vcell drops below the [threshhold]threshold active voltage Vactive.